

Sustainable Materials Management

Environmental Education

INTRODUCTION

The occasional series of international fact sheets on this web page provides summary information on selected topics relevant to the functions and activities of the EPA programs that manage waste, clean up contaminated sites, promote the productive use of land, and address emergencies. An important purpose of the papers is to promote a fuller understanding of actions around the world to protect the environment in relation to these subject areas. The international fact sheets do not establish policy or represent the views of EPA. Each fact sheet provides information and electronic links to other sources of information that can provide the reader with a fuller understanding of the material. For organizational purposes, the fact sheets have been placed in four broad categories:

- Treaties, Directives, and Policies
- New Directions in Program Management
- Innovative Approaches to Environmental Protection
- Emerging Issues

TOPIC SUMMARY

This fact sheet on Education summarizes some important actions taken by international organizations to foster the **integration of sustainable development concepts and environmental education**. The fact sheet describes public and private sector examples of programs and initiatives from around the world that are designed to further the goals of sustainable development through education. The fact sheet briefly identifies some US resources on environmental education for schools as well, and provides links to these resources readers. The fact sheet is not comprehensive; rather it provides a starting point for readers interested in investigating the topic.

EDUCATION AND SUSTAINABLE DEVELOPMENT: SELECTED BACKGROUND

Schools in many countries emphasize environmental education and ethics as they prepare students to be environmental stewards. The concept of “sustainable development” has been important in influencing this direction worldwide since the 1992 United Nations Conference on Environment and Development (**the Earth Summit**) in Rio Janeiro. Sustainable development and environmental protection are integrally related; the “holistic” concept of sustainable development places environmental protection within a larger social context that includes economic growth and human well-being.

The World Commission on Environment and Development, in its landmark 1987 **Brundtland Report** (*Our Common Future*) defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Applying this concept, for example, the Department for Environment, Food, and Rural Affairs (DEFRA) in the United Kingdom (see <http://www.defra.gov.uk/environment/>) has emphasized the importance of integrating policies on the environment with other public policies. DEFRA connects environmental protection with three other sustainable environment goals: housing, social progress, and economic growth.

The **Earth Summit**, which was held on the 20th anniversary of the first international conference on the human environment (the UN Stockholm Conference), brought global attention to the idea that the planet's environmental problems are intimately linked to economic conditions and problems of social justice. The Earth Summit also highlighted the importance of environmental education in furthering sustainable development goals. Principle 21 from the Earth Summit Declaration on Environment and Development (**the Rio Declaration**), states in part: *“The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.”*

Agenda 21, the Environment and Development Agenda, is a broad-ranging program of actions developed by nations attending the Earth Summit. Chapter 25 of Agenda 21 is devoted to “Children and Youth in Sustainable Development.” It recognizes the important participatory role of youth in decision making and states, *“the specific interests of children need to be taken fully into account in the participatory process on environment and development in order to safeguard the future sustainability of any actions taken to improve the environment.”* Governments should *“ensure that education ... incorporates the concepts of environmental awareness and sustainable development throughout the curricula.”* Governments should *“establish procedures to incorporate children's concerns into all relevant policies and strategies for environment and development at the local, regional and national levels....”* The **Johannesburg World Summit on Sustainable Development** in 2002 reaffirmed the importance of integrating sustainable development into education, strengthened the linkages between poverty, the environment, and the use of natural resources. It created the **UN Commission on Sustainable Development** for effective follow-up.

PROGRAMS AND INITIATIVES

Public and private sector examples of programs and initiatives from around the world designed to further the goals of sustainable development through education include:

International Organizations

- The **UN Dept of Economic and Social Affairs - Division for Sustainable Development** (<http://www.un.org/esa/sustdev/>) is tasked with implementing Agenda 21 goals for sustainable development in the 21st century, as defined by the UN Council for Sustainable Development.
- Since 1994, the **UN Education, Science, and Cultural Organization (UNESCO)** has supported Agenda 21 goals by administering a project titled “Educating for a Sustainable Future” to promote values and ethics, e.g., through innovative demonstrations, curriculum modules, and training. See http://portal.unesco.org/education/en/ev.php-URL_ID=27234&URL_DO=DO_TOPIC&URL_SECTION=201.html.
- In 2002, the United Nations proclaimed a **Decade of Education for Sustainable Development** from 2005 to 2015. UNESCO has an interactive website to focus attention on the initiative: http://portal.unesco.org/education/en/ev.php-URL_ID=30111&URL_DO=DO_TOPIC&URL_SECTION=201.html.
- The **United Nations Economic Commission for Europe** has been very active in furthering the concept of sustainable development in environmental education and has developed a *Strategy for Education for Sustainable Development*. See <http://www.unece.org/env/esd/welcome.htm>.
- The **World Bank** Development Education Program offers a website of classroom-ready sustainable development tools, including learning modules and interactive material for students. See <http://www.worldbank.org/depweb/>

Country Examples

- Australia. The **National Sustainable Schools Program**, an initiative of Australia's cross-governmental National Environmental Education Network, implements efficiencies in school resource management for energy, waste, water, and bio-diversity. See <http://www.biodiversity.ea.gov.au/education/sustainable-schools/index.html>. Also see <http://www.deh.gov.au/education/index.html> for information on the government's integrated approach to environmental education in Australia
- Canada. **Earthcare Canada** is an activity-based, curriculum-aligned environmental education program for all grade levels designed to achieve environmental stewardship and sustainability through youth engagement. It focuses on energy conservation, waste reduction, and water conservation. See http://www.earthcarecanada.com/EarthCARE_Program/default.asp
- Germany. The Federal Environmental Agency (UBA) and private sector partners have launched a national campaign in 2004 to encourage the purchase of **environmentally-friendly school supplies**. See <http://www.umweltbundesamt.de/uba-info-presse-e/2004/pe04-062.htm>. The UBA and German Foundation for Environmental Education partnered to recognize **school supervisory bodies** across Germany that have championed Agenda 21 goals in demonstrating the synergistic effects of sustainable development, efficiency, and cost savings. See <http://www.umweltbundesamt.de/uba-info-presse-e/2004/pe04-014.htm>
- New Zealand. **The Environschools Programme** uses a "whole school" approach, including an award incentive scheme, to promote environmental education. Students develop skills, understanding, knowledge, and confidence through planning, designing, and creating a sustainable school – including the use of sustainable conservation practices in school operations. See <http://www.enviroschools.org.nz/>

Non-Governmental Organizations

- The **International Eco-Schools Programme**, developed in 1994 by the Foundation for Environmental Education (FEE), involves young people in finding solutions to Agenda 21 environmental and sustainable development challenges. Member organizations in 28 countries worldwide implement the Programme, using an holistic, participatory approach to extend learning beyond the classroom. The Eco-Schools **Green Flag**, is awarded to schools with high achievement. There are nearly 15,000 12,600 Eco-Schools registered in over 35 countries in Europe, Africa, and South America. See <http://www.eco-schools.org/>
- The **Earth Charter Initiative** is used by educators internationally to raise awareness regarding ethics, environment, social justice, sustainable development, globalization, and international relations. The document was developed by non-governmental organizations, community groups, professional societies, and international experts in many fields. See http://www.earthcharter.org/innerpg.cfm?id_menu=22
- **Peace Child International Projects**. Peace Child Charitable Trust is an international sustainable development network of 500 high-school student eco-groups groups in 120 countries. Run by young people in equal partnership with adult professionals, it promotes sustainable development through a number of projects by going into schools and training young people to be "change ambassadors." See <http://www.peacechild.org/>
- The **Gould League**, a leading Australian environmental education organization, has pioneered the development of outcomes-based environmental, in cooperation with both the national and regional governments. **Sustainable Schools Victoria** includes teacher professional development, integrated student activities, and opportunities for community involvement. See <http://www.gould.edu.au/programs.asp?id=396>

SOME U.S. ACTIVITIES AND ADDITIONAL RESOURCES

In 1996, the **President's Commission on Sustainable Development** (PCSD) issued a report titled *Sustainable America: A New Consensus for Prosperity, Opportunity, and Healthy Environment* (see http://clinton2.nara.gov/PCSD/Publications/TF_Reports/amer-top.html). In this report, the Council adopts the Brundtland Commission's definition of sustainable development and recommends both formal and non-formal educational reforms to strengthen education for sustainability. Examples of U.S. Federal and State Government initiatives that address environmental education and sustainability themes include:

- **EPA - Environmental Education.** <http://www.epa.gov/enviroed/>. EPA develops and supports collaborative programs to improve understanding of the environment. The site provides extensive resources on environmental education, including grants and fellowships
- **EPA - Kids, Students, High School and Teachers.** <http://www.epa.gov/epahome/students.htm>. The page provides age-appropriate educational resources for children, as well as traditional and non-traditional materials for teachers
- **EPA - Educational Resources on Waste.** <http://www.epa.gov/epaoswer/education/index.htm>. The page makes available materials for teachers, kids, students, and researchers to develop an increased knowledge of solid waste issues
- **EPA - Superfund for Kids.** <http://www.epa.gov/superfund/kids/>. The page introduces children ages three and older to basic concepts of the Superfund program
- **EPA - Sustainability Research.** <http://www.epa.gov/sustainability/releasepubcommt.html>. EPA's 2006 draft Sustainability Research Strategy affirms the emerging importance of achieving sustainability outcomes and establishes priorities to address sustainability research questions
- **EPA - International Environmental Programs.** <http://www.epa.gov/oia/techasst/enviredu/programs.html>. Through a number of international organizations, EPA provides technical assistance, training, and information dissemination to support the development of environmental education programs
- **EPA - Green Communities.** <http://www.epa.gov/greenkit/student.htm>. This page is designed for teachers who wish to introduce the concepts of sustainability into their classrooms and for students who need assistance and guidance in their sustainable research projects
- **EPA - Green Engineering.** <http://www.epa.gov/oppt/greenengineering/>. Green engineering is the design, commercialization and use of processes and products that are feasible, economical, reduce generation of pollution, and minimize risks to human health and the environment
- **EPA - Healthy School Environments.** <http://cfpub.epa.gov/schools/index.cfm>. This EPA "gateway" to on-line resources on environmental health issues in schools serves the needs of facility managers, school administrators, design professionals, teachers, and parents
- **EPA Region X - Sustainability.** <http://yosemite.epa.gov/r10/oi.nsf/5d8e619248fe0bd88825650f00710fbc/3d5de9da58cceb7288256981007cd907?OpenDocument>. The page highlights links to EPA Regional and Headquarters actions that promote sustainable approaches to environmental protection
- **US Partnership for the Decade of Education for Sustainable Development (USPDES).** <http://www.uspartnership.org/index.php>. USPDES partnership of individuals, organizations, and institutions is dedicated to the UN Decade of Education for Sustainable Development
- **California – Environmental Education.** <http://www.cde.ca.gov/pd/ca/sc/oeaintrod.asp>. The page provides information links to current environmental education resources and the State plan for environment-based education
- **University of Michigan - Center for Sustainable Systems (CSS).** <http://css.snre.umich.edu/index.php>. CSS advances concepts of sustainability through interdisciplinary research and education.